

REMARKS

The application has been reviewed in light of the Office Action dated September 16, 2003. Claims 7-16 were pending in the application, with claims 7-11 and 13-15 having been withdrawn by the Patent Office from further consideration. Claims 1-6 were previously canceled, without prejudice.

By this Amendment, Applicant has added dependent claim 17, and amended independent claims 12 and 16 to clarify the claimed invention.

Applicant respectfully submits that no new matter is introduced by the present amendment, and requests that this amendment be entered.

Accordingly, claims 12, 16 and 17 are presented for examination.

Claims 12 and 16 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent 4,847,132 to Takao et al.

Applicants have carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 12 and 16 are patentable over the cited art, for at least the following reasons.

This application relates to improvements to a data recording medium. More specifically, a heat-resistant protection layer is provided in the data recording medium which allows data to be stably recorded to and erased from the recording medium a number of times repeatedly. Generally, data is recorded in a recording layer of the recording medium by heating the recording layer to above its melting point and then cooling it sufficiently rapidly to form amorphous portions in the recording layer. On the other hand, the recording layer, except for recorded portions thereof, is protected from the effects of heat in order to preserve the boundary between recorded portions and unrecorded portions and avoid crystallization and erasure

of the recorded portions. The protection layer has high thermal conductivity and channels away from the recording layer the heat released by the recorded portions.

As shown exemplarily in Table 1 (Examples 9 and 10) on page 13 of the application, Applicant found that a protection layer comprising SiO_2 as a basic material and a compound which comprises silicon nitride in a molar ratio with the basic material of 10% to 85% silicon nitride was particularly effective for repeated recording and erasing.

Independent claim 12 is directed to a protection layer for a data recording medium, the protection layer comprising SiO_2 as a basic material and a compound having a thermal conductivity greater than or equal to 10 W/m.deg when in a bulk state. The compound comprises silicon nitride in a molar ratio with the basic material of 10% to 85% silicon nitride.

Takao, as understood by Applicants, is directed to a protective layer for rewritable optical information recording medium comprising a susbtarte and an active layer. Takao teaches that it is desirable for the protective layer to have a high efficiency of optical absorption, and the desired effect can be achieved by a protective layer consisting of mutually solid-insoluble components.

The Office Action cites Example 4 of Takao as disclosing a protective layer comprising silicon nitride. More specifically, Example 4 discloses a protective layer consisting of silicon nitride and zinc sulfide.

Applicants do not find disclosure or suggestion in Takao, however, of a protection layer for a data recording medium, the protection layer comprising SiO_2 as a basic material and a compound having a thermal conductivity greater than or equal to 10 W/m.deg when

in a bulk state and comprising silicon nitride in a molar ratio with the basic material of 10% to 85% silicon nitride, as provided by independent claim 12 as amended. Takao simply does not disclose or suggest the advantages of a protection layer as claimed in claim 12.

Since the cited art does not disclose or suggest each and every feature of the claimed invention, the cited art does not render the claimed invention unpatentable.

Independent claim 16 is patentably distinct from the cited art for at least similar reasons.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

The Office is hereby authorized to charge any additional fees that are required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Reconsideration and allowance of this application are respectfully requested.

Respectfully submitted,


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